

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1448A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

1

of

8

**Complete If Known**

Application Number	09/721,848
Filing Date	11/22/2000
First Named Inventor	Brad A. Armstrong
Group Art Unit	
Examiner Name	
Attorney Docket Number	

## U.S. PATENT DOCUMENTS

[illegible]

**FOREIGN PATENT DOCUMENTS**

[illegible]

**Examiner  
Signature**

Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

*(use as many sheets as necessary)*

Sheet

2

of

**Complete if Known**

Application Number

Filing Date

First Named Inventor	Brad A. Armstrong
----------------------	-------------------

### Group Art Unit

**Examiner Name**

Attorney Docket Number

## OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

[illegible]

**Examiner  
Signature**

Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		JUN 21 2001		Complete if Known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)				Application Number	
				Filing Date	
				First Named Inventor Brad A. Armstrong	
				Group Art Unit	
				Examiner Name	
Sheet	3	of	8	Attorney Docket Number	

U.S. PATENT DOCUMENTS						
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
CLM		5565891		Armstrong	1996	
		5589828		Armstrong	1996	
		5999084		Armstrong	1999	
		6102802		Armstrong	2000	
		6135886		Armstrong	2000	
		6198473		Armstrong	2001	
		6208271		Armstrong	2001	
		6222525		Armstrong	2001	
		3611068		Fujita	1971	
		3806471		Mitchell	1974	
		3952173		Tsuji	1976	
		3988556		Hyodo	1976	
		4224602		Anderson	1980	
		4313113		Thornburg	1982	
		4315238		Eventoff	1982	
		4552360		Bromley	1985	
		4673919		Kataoka	1987	
		4786895		Castaneda	1988	
		4866542		Shimada	1989	
		5164697		Kramer	1992	

FOREIGN PATENT DOCUMENTS							
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)			
CLM			wo9532776		Namco	1995	
			ep1080753		Namco	2001	
			jp6154422		Namco	1994	
			jp9218737		Namco	1997	
			ep1080753		Namco	2001	
			ep0337458		Namco	1989	
			ep0337458		Namco	1989	
			jp7281824		Namco	1995	
			ep0470615		Nintendo	1992	
			ep0579448		Texas Instruments	1994	

Examiner Signature	<i>[Signature]</i>	Date Considered	11/26/01
--------------------	--------------------	-----------------	----------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Substitute for form 1449A/PTO		JUN 21 2001		Complete if Known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)				Application Number	
				Filing Date	
				First Named Inventor <b>Brad A. Armstrong</b>	
				Group Art Unit	
				Examiner Name	
Sheet <b>4</b>	of	<b>8</b>	Attorney Docket Number		

U.S. PATENT DOCUMENTS						
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
/		5200597		Eastman	1993	
		5207426		Inoue	1993	
		5287089		Parsons	1994	
		5311279		Teruo	1994	
		5315204		Park	1994	
		5364108		Esnouf	1994	
		5365494		Lynch	1994	
		5376913		Pine	1994	
		5396235		Maeshima	1995	
		5440237		Brown	1995	
		5457478		Frank	1995	
		5640566		Victor	1997	
		5670955		Thorne	1997	
		5673237		Blank	1997	
		5675329		Barker	1997	
		5689285		Asher	1997	
		5764219		Rutledge	1998	
		5778404		Capps	1998	
		5790102		Nassima	1998	
		5847305		Yoshikawa	1998	

FOREIGN PATENT DOCUMENTS							
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Foreign Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>4</sup>
		Office <sup>3</sup>	Number <sup>4</sup>				
/			DE3031484	Gurndig	1982		
			DE3543890	Thomson-Brant	1987		
			GB2113920	Alps Electric	1983		
			GB058462	Shin-Etsu Polymer	1981		
			wo9957630	Schneider	1999		

Examiner Signature	<i>[Signature]</i>	Date Considered	11/26/01
--------------------	--------------------	-----------------	----------

<sup>1</sup> EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>2</sup> Unique citation designation number. <sup>3</sup> See attached Kinds of U.S. Patent Documents. <sup>4</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>5</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>6</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>7</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

95 no persons are required

JUN 21 2000

DISCLOSURE  
BY APPLICANT

+

Substitute for form 1449B/PTO

**Complete If Known**

*(use as many sheets as necessary)*

Sheet

6

of

8

Filing Date

**First Named Inventor**

### Group Art Unit

**Examiner Name**

Attorney Docket Number

Brad A. Armstrong
-------------------

trong

RECEIVED  
JUN 25 2001  
Technology Center 2800

72

## OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

[illegible]

**Examiner  
Signature**

Date \_\_\_\_\_

**Considered**

11	26	61
----	----	----

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

+

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		JUN 21 2001		Complete If Known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)				Application Number	
				Filing Date	
				First Named Inventor	Brad A. Armstrong
				Group Art Unit	
				Examiner Name	
Attorney Docket Number					
Sheet	7	of	8		

RECEIVED  
JUN 29 2001  
Technology Center 2600

97 100

U.S. PATENT DOCUMENTS						
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
		THE BELOW		LISTED DISCLOSURES	FROM Questel-Orbit QWEB 1-24	(hereto attached)
L/ANW		5898359		Delco	1999	
		5550339		CTS Corp.	1996	
		5847639		Interlink	1998	
		5867808		IBM	1999	
		5287089		Parsons	1994	
		5132658		Sensym INC.	1992	
		5196782		Luntron	1991	
		4975676		Spectra	1990	
		4694231		Alvite	1987	
		4615252		Asahi	1986	
		4301337		Eventoff	1981	
		4314228		Eventoff	1982	
		4315238		Eventoff	1982	
		4268815		Eventoff	1981	
		4276538		Eventoff	1981	

FOREIGN PATENT DOCUMENTS							
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)			
L/ANW			jp11031606		Teikoku	1999	
			jp09223607		Teikoku	1997	
			jp09213168		Teikoku	1997	
			DE19606408		Contelec	1997	
			GB2308448		Samsung	1997	
			RU2010369		Smyslov	1994	
			GB2267392		Collins	1993	
			jp05151828		Yokohama	1993	
			jp04155707		Yokohama	1992	
			jp03108701		Canon	1991	

Questel-Orbit data continued on next sheet

Examiner Signature	<i>[Signature]</i>	Date Considered	11/26/01
--------------------	--------------------	-----------------	----------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449VP/TO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 8 of 8

**Complete If Known**

**Application Number**

Filing Date

**First Named Inventor**

Brad A. Armstrong

### Group Art Unit

**Examiner Name**

Attorney Docket Number

Questel-Orbit continuation

## U.S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>2</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (If known)				
Kran			GB2233499		Mitsubishi	1991		
			DE4019211		Lutron	1991		
			jp 02158105		Yokohama	1990		
			DE3634912		Link	1988		
			jp62160623		Yamatake	1987		
			jp60175401		Asahi	1985		

**Examiner  
Signature**

Date Considered

**\*EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(use as many sheets as necessary)*

Sheet	1	of	1
-------	---	----	---

**Complete if Known**

Application Number	09/721,848
Filing Date	11/22/2000
First Named Inventor	Brad A. Armstrong
Group Art Unit	2673
Examiner Name	
Attorney Docket Number	32

32

## U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

**Examiner  
Signature**

Date	
Considered	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**